

Sample – Nerve Agent Antidote Dosages

NOTE: Established local protocols should be followed.

<u>PATIENT</u>	<u>AGE/WEIGHT</u>	<u>ATROPINE</u>	<u>2-PAM</u>	<u>DIAZEPAM</u>
Infant	0-3 years <13 Kg (~30 lbs)	0.05-0.1 mg/kg IM/IV or 0.1 mg - 1 mg MDV	25-50 mg/kg IM/IV or 150 - 600 mg MDV	0.2-0.5 mg/kg IM/IV or 1.25 mg – 5 mg Carpject syringe
Small Child to Child	3-10 years 13-35 kg (~30-77 lbs)	1-4 mg IM/IV MDV or MARK 1	25-50 mg/kg IM/IV or 300 - 1200 mg MDV or MARK 1	0.2-0.5 mg/kg IM/IV or 2.5 mg – 10 mg Carpject/autoinjector
Adolescent to Adults	>10 years >35 kg (~77 lbs)	2-6 mg IM/IV MDV or MARK 1	25 mg/kg (adolescent) IM/IV or 600 - 1800 mg IM MDV or MARK 1	5-10 mg IM/IV Carpject/autoinjector
Elderly Frail	Elderly Frail	1-4 mg IM/IV MDV or MARK 1	10-25 mg/kg IM/IV MDV or MARK 1	1.25-10 mg/kg IM/IV Carpject/autoinjector

MARK 1 autoinjector = 2mg atropine and 600mg 2-PAM; Diazepam autoinjector – 10mg; Diazepam Carpject syringes – 5mg/ml (2ml)

MDV = multidose vials

Preferred site of injection for infants, children, and adults for IM autoinjector or syringe – anterolateral thigh

SAMPLE - ANTIDOTE DOSING BASED ON SYMPTOMS

<u>EXPOSURE</u>	<u>SYMPTOMS</u>	<u>INITIAL DOSING* (EMS)</u>	<u>REPEAT DOSING (Transport/Hospital)</u>
Mild	SLUDGE, agitation	Observe or MARK 1	Observe
Moderate	SLUDGE, respiratory distress, agitation	2 MARK 1**	Atropine 5-10 min; 2-PAM q 30-60 min
Severe	SLUDGE, respiratory distress, CNS seizures	3 MARK 1** Diazepam	Atropine 5-10 min; 2-PAM q 30-60 min Diazepam q 2-5 min

* Infant/child/frail elderly MARK 1 dosing – if MDV not available, IV route not established and/or precise dosing impossible – consider administration of MARK 1.

** As quick as possible, both drugs from the autoinjector, one right after the other.

SLUDGE = Salivation, Lacrimation, Urination, Defecation, GI, Emesis

References:

- Domestic Preparedness Training Program. Version 8.0. Booz-Allen & Hamilton Inc., Science Applications International Corporation Inc., EIA Corporation, and DPI Inc. 1999: M3-1-66
- Sifton DW. PDR Guide to Biological and Chemical Warfare Response, First Edition. Montvale, NJ. Thompson/Physician's Desk Reference: 2002: 79-86; 94; 101-102; 126-127.
- Pediatric Preparedness for Disasters and Terrorism – A National Consensus Conference. Executive Summary. National Center for Disaster Preparedness, Columbia University, Mailman School of Public Health. 2003.
http://www.childrenshealthfund.org/CHF2286VFinal_adj.2.pdf (accessed November 17, 2003).

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Table 21-2

Mark I* Kit Dosing for Children with Severe, Life-threatening Nerve Agent Toxicity†

Approximate Age (in years)	Approximate Weight	Number of Mark-1 Kits to Use	Atropine Dosage Range (mg/kg)	Pralidoxime Dosage Range (mg/kg)
3-7	13-25 kg	1	0.08-0.13	24-46
8-14	26-50 kg	2	0.08-0.13	24-46
> 14	> 51 kg	3	0.11 or less	35 or less

*†Meridian Medical Technologies Inc, Bristol, Tenn. If an adult Mark I kit is the only available source of atropine and pralidoxime, it should not be withheld even from children under 3 years old.

Data source: Columbia University Mailman School of Public Health. Atropine use in children after nerve gas exposure. *Info Brief*. 2004;1(1):1-8.